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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,669	03/19/2004	Darrell Gordy	1391-43100	8006
46133	7590	04/30/2007	EXAMINER	
CONLEY ROSE, P.C. PO BOX 3267 HOUSTON, TX 77253-3267			HUGHES, SCOTT A	
			ART UNIT	PAPER NUMBER
			3663	
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			04/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/804,669

Applicant(s)

GORDY ET AL.

Examiner

Scott A. Hughes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/9/2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-29 and 31-53 is/are pending in the application.
- 4a) Of the above claim(s) 13-18 and 37-51 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 7-12, 19-29 and 31-36 is/are allowed.
- 6) ☒ Claim(s) 52 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/9/2007 has been entered.

Response to Arguments

Applicant's arguments, see Arguments/Remarks and amendments to the claims, filed 2/9/2007, with respect to claims 1-5, 7-12, 19-29, and 31-36 have been fully considered and are persuasive. The rejection of claims 1-5, 7-12, 19-29, and 31-36 has been withdrawn.

Applicant's arguments filed 2/9/2007 with respect to claims 52 and 53 have been fully considered but they are not persuasive.

Applicant argues that there is not motivation to combine the Tulett and Naville references because doing so would render Tulett unsatisfactory for its intended purposes. Applicant argues that Tulett teaches away from using wireless communication because Tulett using digital communication lines in order to eliminate crosstalk, signal leakage, and the potential for an inadvertent gun firing. Applicant states that using a wireless system as taught Naville would include crosstalk and

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leakage. This argument is not persuasive because the Tulett reference is stating the advantages of a digital line over an analog line when discussing the issues of crosstalk, leakage, and inadvertent gun firing. Tulett is not stating that the lines must be used instead of wireless communications, but is stating that using digital communications has an advantage over analog lines. In paragraphs [0031-0038] Tulett states that the communication interfaces between the components of the system should be digital interfaces for the purpose of gaining advantages over using analog transmissions. Since wireless communication allows for digital communication with the benefit of not being restricted in position by cables, a combination of Tulett with the wireless teaching of Naville does not render Tulett unsatisfactory for its intended purposes. The intended purpose of Tulett is to use digital instead of analog communication, and the benefits of a wireless system do not destroy this intended purpose. Although applicant states that the Naville reference will introduce crosstalk and leakage, there is nothing in either Tulett or Naville that states that using wireless communication over the distances of Tulett will introduce crosstalk or leakage. Tulett is not focused on differences between wireless and cable systems, but rather on digital versus analog systems. Further, applicant does not provide proof for the statement that modifying the system of Tulett to include wireless communication would introduce sufficient crosstalk or leakage to render the system unsatisfactory. From the teachings of Naville, there are benefits to providing a wireless instead of a wired system for communication in a marine seismic environment including buoys.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tulett in view of Naville (6175809).

With regard to claim 52, Tulett discloses a system for generating a seismic wave (Figs. 2-3) (abstract). Tulett discloses a means for remotely controlling a placement system 214,108 (Fig. 2) on a buoy to position the buoy 108, the means for remotely controlling the placement system being in remote communication with the buoy through a buoy communication system ([0027]-[0032]). Tulett discloses a means for controlling an operating system on the buoy ([0008]; [0028-0032]). Tulett discloses a means for producing a seismic wave with a seismic wave production device 106 on the buoy ([0027]-[0032]). Tulett does not disclose that the communication system is a wireless system and also does not disclose that the remote control system is a wireless remote control system in wireless communication with the buoy. Tulett teaches that the communication is conducted over wired communication lines, not wirelessly. Naville teaches a buoy used in seismic surveys that connects to a seismic source located in the ocean (Figs. 1-2) (abstract). Naville teaches that control systems and communication systems used in ocean seismic surveys with buoys can communicate by using wireless

systems (abstract; Column 2, Lines 1-30; Column 4, Lines 7-38) (Figs. 1-2). It would have been obvious to modify Tulett to include wireless communication systems and control systems as taught by Naville in order to allow for communication between parts of the system without the need for cables connecting the devices which may bend or break in the sea conditions. Wireless communication as taught by Naville also allows for devices to be interconnected over a distance where a cable can not be placed, and further allows for new devices to be added to the system without having to run wires to connect them to all other devices in the system.

With regard to claim 53, Tulett discloses a system for acquiring seismic data on an underground formation (abstract, [0008]; [0025]). Tulett discloses a means for remotely controlling a placement system 214,108 (Fig. 2) on a buoy to position the buoy 108. Tulett discloses a means for controlling an operating system on the buoy ([0008]; [0028-0032]). Tulett discloses a means for producing a seismic wave with a seismic wave production device 106 on the buoy ([0027]-[0032]). Tulett discloses a means for transmitting a monitoring signal from the buoy to the means for controlling a placement system, the monitoring signal comprising the signature of the seismic wave as a function of time ([0034]-[0037]; [0041]-[0044]). Tulett discloses a means for transmitting a position signal from a dynamic position device on the buoy to the means for remotely controlling the placement system, the position signal indicating the position of the buoy at the time of generating the seismic wave ([0032]-[0033]). Tulett discloses a means for receiving the seismic wave 103 (Fig. 2) ([0027]). Tulett discloses a means for generating a data signal indicative of the received seismic wave ([0024-0027]). Tulett

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does not disclose that the communication system is a wireless system and also does not disclose that the remote control system is a wireless remote control system in wireless communication with the buoy. Tulett teaches that the communication is conducted over wired communication lines, not wirelessly. Naville teaches a buoy used in seismic surveys that connects to a seismic source located in the ocean (Figs. 1-2) (abstract). Naville teaches that control systems and communication systems used in ocean seismic surveys with buoys can communicate by using wireless systems (abstract; Column 2, Lines 1-30; Column 4, Lines 7-38) (Figs. 1-2). It would have been obvious to modify Tulett to include wireless communication systems and control systems as taught by Naville in order to allow for communication between parts of the system without the need for cables connecting the devices which may bend or break in the sea conditions. Wireless communication as taught by Naville also allows for devices to be interconnected over a distance where a cable can not be placed, and further allows for new devices to be added to the system without having to run wires to connect them to all other devices in the system.

Allowable Subject Matter

Claims 1-5, 7-12, 19-29, and 31-36 are allowed.

The following is an examiner's statement of reasons for allowance:

As argued by applicant, the closest prior art does not teach a seismic source system comprising a buoy as claimed in independent claims 1 and 19 wherein the placement system of the buoy source system includes an anchor winch attached to an anchor, with the anchor winch being controlled by a wireless remote control system

such that the buoy is remotely positionable. The closest prior art showed a buoy source system including a placement system and anchor lines, but did not disclose anchor winches being wirelessly controlled such that the buoy is remotely positionable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The cited prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A. Hughes whose telephone number is 571-272-6983. The examiner can normally be reached on M-F 9:00am to 5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SAH



IAN J. LOBO
PRIMARY EXAMINER